

**REMARKS**

In the present Amendment, claims 1 and 5 have been amended to delete “a bisacyl phosphine” from the definition of compound (B-1).

Claim 4 has been amended to recite that R<sup>6</sup> represents a substituted aryl group wherein the sum of the Hammett’s values of the substituent group(s) on the substituted aryl group is greater than 0. This amendment is supported by the present specification, for example, at page 29, 3rd paragraph.

Claim 8 has been rewritten in independent form.

Claim 9 has been added. Claim 9 is supported by the present specification, for example, at page 30.

Claims 1, 4 and 5 have been amended to improve their form. These amendments are not to be deemed to narrow the scope of the claims.

No new matter has been added and entry of the Amendment is respectfully requested. Upon entry of the Amendment, claims 1-9 will be all the claims pending in the application.

**I. Response to Rejection Under 35 U.S.C. § 102**

Claim 4 is rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Murota et al (EP 1048982 A1) (“EP ‘982”).

Applicant respectfully submits that claim 4 as amended is novel over EP ‘982. As noted above, Applicant has in the Amendment, amended claim 4 to recite that R<sup>6</sup> represents a

substituted aryl group wherein the sum of the Hammett's values of the substituent group(s) on the substituted aryl group is greater than 0, which is not disclosed in EP '982.

Furthermore, the compounds defined in present claim 4 can be used as a spectral sensitizing dye capable of forming a highly sensitive initiator system, due to the attraction of the electrons on the N atom by the substituted aryl group. Therefore, by limiting the sum of the Hammett's values of the substituent group(s) on the substituted aryl group, the electron-attracting nature thereof is enhanced, thereby enhancing the photo-sensitivity. EP '982 is silent about this feature of the present invention.

In view of the foregoing, Applicant respectfully submits that claim 4 is not anticipated or obvious over EP '982, and thus the rejection should be withdrawn.

In addition, Applicant submits that new claim 9 is novel and patentable over EP '982 for the same reasons as set forth above.

## **II. Response to Rejection Under 35 U.S.C. § 103**

Claims 1-3 and 5-7 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over EP '982.

Applicant respectfully submits that the present claims are patentable over EP '982 for the reasons set forth in the Response previously filed April 20, 2006 and the following additional reasons.

As Applicant pointed out in the Response, EP '982 discloses a polymerizable composition comprising a sensitizing dye, a titanocene compound and an addition polymerizable compound, wherein the titanocene compound is an essential component.

Applicant submits herewith an executed Declaration under 37 C.F.R. § 1.132 of Mr. Shibuya, the sole inventor of the present invention. The Declaration demonstrates the unexpectedly superior results of the present invention and thus further supports the patentability of the present invention.

Specifically, in the Declaration, photosensitive materials of Example 5 and a Comparative Example were prepared. Example 5 is described in the present application and contained compound A-5, i.e., hexaaryl biimidazole as an initiator (HABI). The Comparative Example is the same as Example 5, except that compound A-10 was used as the initiator instead of compound A-5. As shown on page 176 of the present specification, compound A-10 is a titanocene compound. The photosensitive materials of Example 5 and the Comparative Example were then evaluated in terms of safelight stability, and the results are reproduced in Table 1 below:

Table 1. Result of Performance Evaluation

	Initiator System			Coating Amount (mg/cm <sup>2</sup> )	Clearing Sensitivity (mJ/cm <sup>2</sup> )	Safelight Stability
	Sensitizing dye (Xg)	Initiator (Yg)	Co-sensitizer (Zg)			
Example 5 (described in the present specification)	D1 (0.07)	A-5 (0.10)	C-1 (0.5)	1.2	0.25	Good
Comparative Example	D1 (0.07)	A-10 (0.10)	C-1 (0.5)	1.2	0.30	Poor

All the symbols in Table 1 have the same meanings as described in the present application.

As the results in the above Table 1 show, the photosensitive material of the Comparative Example, which contained a titanocene initiator, gave rise to fog under a yellow light safelight. In contrast, the photosensitive material of Example 5, which contained a hexaaryl biimidazole initiator, did not give rise to fog under a yellow light safelight.

In the case of making a lithographic printing plate from a precursor thereof in the art, the precursor is sometimes treated under a yellow safelight. When a titanocene compound is used in a lithographic printing plate precursor, polymerization proceeds to some extent since the titanocene has an absorption spectrum slightly overlapping with the transmission spectrum of the yellow safelight. This phenomenon is called “fog due to dark reaction”. In other word, even in the unexposed areas (the portions where no image is formed or the portions that are desired not to cause polymerization reaction), polymerization occurs, and thus such areas remain since the portions are not removed by development. The remaining areas attract ink during printing, appearing as stains. Accordingly, use of titanocene is not suited for cases where a lithographic printing plate precursor is handled under a yellow safelight.

In view of the foregoing reasons, Applicant respectfully submits that the present claims are not obvious over EP ‘982, and thus the rejection should be withdrawn.

### **III. Response to Claim Objection**

Claim 8 is objected to as being dependent upon a rejected base claim.

In response, Applicant has rewritten claim 8 in independent form. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the objection.

**IV. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Fang Liu  
Registration No. 51,283

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: July 20, 2006



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q80850

Akinori SHIBUYA

Appln. No.: 10/813,136

Group Art Unit: 1752

Confirmation No.: 3725

Examiner: Barbara Lee Gilliam

Filed: March 31, 2004

For: PHOTSENSITIVE COMPOSITION AND NOVEL COMPOUND USED THEREFOR

**EXCESS CLAIM FEE PAYMENT LETTER**

**MAIL STOP RCE**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

An Amendment Under 37 C.F.R. § 1.114(c) is attached hereto for concurrent filing in the above-identified application. The resulting excess claim fee has been calculated as shown below:

	After Amendment	Highest No. Previously Paid For					
All Claims	<u>9</u>	<u>20</u>	=	<u>          </u>	X	<u>\$50.00</u>	= <u>\$0.00</u>
Independent	<u>4</u>	<u>3</u>	=	<u>1</u>	X	<u>\$200.00</u>	= <u>\$200.00</u>
<b>TOTAL</b>							= <u><b>\$200.00</b></u>

A check for the statutory fee of \$200.00 is attached. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A

EXCESS CLAIM FEE PAYMENT LETTER  
U.S. Application No.: 10/813,136

Attorney Docket Q80850

duplicate copy of this letter is enclosed.

Respectfully submitted,



Fang Liu  
Registration No. 51,283

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: July 20, 2006